



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,221	05/15/2001	Rolf De Vos	OYJALO-008	5384

530 7590 12/20/2002

LERNER, DAVID, LITTENBERG,  
KRUMHOLZ & MENTLIK  
600 SOUTH AVENUE WEST  
WESTFIELD, NJ 07090

EXAMINER

ALVO, MARC S

ART UNIT PAPER NUMBER

1731

12

DATE MAILED: 12/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/763,221

Applicant(s)

DE VOS ET AL.

Examiner

Steve Alvo

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 7-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

Art Unit: 1731

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-12 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over HENRICSON '363 or HENRICSON '545 in view of BENTVELZEN et al and the ADMITTED PRIOR ART (specification, page 4, lines 15-24) or AT 403 704 or SIXTA et al.

HENRICSON '363 or HENRICSON '545 teach bleaching medium consistency pulp with ozone and a carrier gas by mixing the ozone and carrier gas into the pulp with a fluidizing (high shear, see '545, column 1, lines 52-56) mixer (14). BENTVELZEN et al teaches treating a stream of medium consistency pulp with gaseous bleaching agents, including ozone (column 32, lines 21-26), by passing the gaseous bleaching agent, e.g. ozone through radial extending stators. BENTVELZEN et al gives an example wherein 224 rotors rotate at a speed of 435 rpm at swept area of 72,200, see BENTVELZEN et al, column 35, lines 3-15. BENTVELZEN et al teaches that the swept area could be as low as 10,000, which could be obtained by using a rotating speed of 10,000 divided by 72,200 X 435 or 60 rpm. It would have been obvious to substitute the high shear mixer of BENTVELZEN et al for the high shear mixer of HENRICSON '363 or HENRICSON '545. It would have been obvious to use high concentrations of ozone when bleaching as taught by the ADMITTED PRIOR ART or AT 403 704 or SIXTA et al. It would have been obvious that when the mixer/reactor of BENTVELZEN is used that a separate bleach vessel would not be necessary.

Art Unit: 1731

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over in HENRICSON '363 or HENRICSON '545 in view of BENTVELZEN et al and the ADMITTED PRIOR ART (specification, page 4, lines 15-24) or AT 403 704 or SIXTA et al as applied to claim 7 above, and further in view of CHENG.

CHENG teaches using a porous metal injector to disperse a gas into a liquid. It would have been obvious to use the distribution injector or nozzle of CHENG to distribute the ozone gas of BENTVELZEN et al into the pulp slurry. It would have been obvious to use any known injection gaseous injection means to inject the ozone gas of BENTVELZEN et al.

The argument that page 4, lines 15-24 (original specification) are part of the Summary of the invention and is not Prior Art is not convincing as these lines state that Swedish Patent Application 9502339-6 and EP-A-426 652 are prior art. It is noted that the substitute specification filed with the preliminary amendment has not been entered, as Applicant has not indicated that it did not contain new matter.

The argument that AT 403 704 nor SIXTA teach high ozone concentrations is not convincing as SIXTA et al teaches using up to  $300 \text{ g/m}^3$  and AT 403 704 teaches using  $120 \text{ g/m}^3$ . Besides the ADMITTED PRIOR ART is also being relied on to teach such high concentrations, e.g. the teachings in the specification with respect to Swedish Patent Application 9502339-6 or EP-A-426 652.

The arguments that BENTVELZEN uses a storage tank and divided gas entry are not convincing as the claims do not exclude neither the divided gas entry nor the storage tank of BENTVELZEN et al.

Art Unit: 1731

Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no original disclosure, which indicates that the ozone is formed from pressurized pressure. Applicant was asked in the last Office Action to indicate where this is disclosed in the original specification. Applicant has not indicated where this term is disclosed.

When filing an “**Official**” FAX in Group 1730, please indicate in the Header (upper right) “**Official**” for papers that are to be entered into the file. The “**Official**” FAX phone numbers for this TC 1700 are:

**Non-Final Fax:** (703) 872-9310      **After-Final FAX:** (703) 872-9311.

When filing an “**Unofficial**” FAX in Group 1730, please indicate in the Header (upper right) “**Unofficial**” for Draft Documents and other Communications with the PTO that are not for entry into the file of the application. This will expedite processing of your papers. The “**Unofficial**” FAX phone number for this Art Unit (1731) is (703) 305-7115.

Any inquiry concerning this communication or earlier communications from the **primary examiner** should be directed to **Steve Alvo** whose telephone number is (703) 308-2048. The Examiner can normally be reached on Monday - Friday from **6:00 AM - 2:30 PM (EST)**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Steve Griffin, can be reached on 703-308-1164.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Group receptionist** whose telephone number is **703-308-0661**.

The **Customer Services Center for Technology Center 1700 (703-306-5665)** shall provide the following service assistance to external and internal customers in the areas listed below.

**Services provided:**

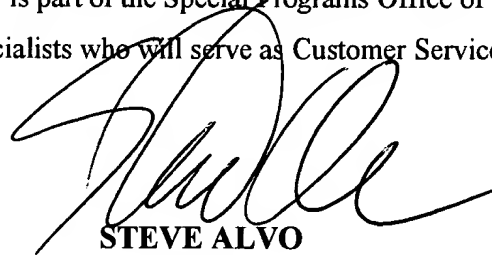
- Patent Application Filing Receipts
- Missing References
- Information regarding When Action can be Expected
- Lost/Misplaced/Requested Application retrieval
- Retrieval from PTO Publication Branch
- Retrieval from non-Publication Branch

Art Unit: 1731

Status Queries (written or oral)  
Paper Matching Queries  
Certificates of Correction.  
Printer Waiting

The Customer Service Office, TC 1700, is located in CP3-8-D13, and is open to receive requests for service in person, by phone **(703) 306-5665**, or E-mail "Customer Service 1700" from 8:30 am-5:00 pm each business day. The Customer Services Center is part of the Special Programs Office of TC 1700 and will be staffed by the Technical Information Specialists who will serve as Customer Service Representatives (CSR).

MSA  
11/29/02



**STEVE ALVO**  
**PRIMARY EXAMINER**  
**ART UNIT 1731**